

What is claimed is:

1. An ion generator which comprises a needle electrode, and a ground electrode cooperable with the needle electrode to generate a corona discharge in the air to produce ions, wherein the ground electrode is disposed so as to surround an imaginary extension of a longitudinal axis of the needle electrode and has a portion thereof depleted to provide a split region defined therein.
- 5 2. The ion generator as claimed in Claim 1, wherein the ground electrode surrounding the imaginary extension of the longitudinal axis of the needle electrode represents a generally U-sectioned shape.
- 10 3. The ion generator as claimed in Claim 1, wherein the ground electrode surrounding the imaginary extension of the longitudinal axis of the needle electrode represents a semicircular-sectioned shape.
4. The ion generator as claimed in Claim 1, wherein the ground electrode surrounding the imaginary extension of the longitudinal axis of the needle electrode has a polygonal sectional shape.
- 15 5. The ion generator as claimed in Claim 4, wherein the ground electrode surrounding the imaginary extension of the longitudinal axis of the needle electrode has a square sectioned shape.
6. The ion generator as claimed in Claim 1, further comprising an ion blowoff port from which the ions produced by the corona discharge emerge outwardly of the ion generator, and a guard member provided on the ion blowoff port for avoiding ingress of foreign matter inwardly of the ion blowoff port.
- 20 7. The ion generator as claimed in Claim 6, wherein the guard member represents a grid shape.
- 25 8. The ion generator as claimed in Claim 6, wherein the guard member comprises two transverse bars positioned forwardly of the ground electrode so as to traverse the ground electrode at two locations, respectively.
9. The ion generator as claimed in Claim 3, wherein a distance from a sharpened end of the needle electrode to a center of the ground electrode surrounding

the imaginary extension of the longitudinal axis of the needle electrode is substantially equal to a radius of curvature of the ground electrode.

10. An ion generator which comprises a needle electrode, a ground electrode cooperable with the needle electrode to generate a corona discharge in the air to produce ions, an outer body disposed at or in a vicinity of an ion blowoff port, and a resistance element through which the ground electrode is connected with the outer body.

5 11. The ion generator as claimed in Claim 1, wherein the resistance element is made of a material having a high resistance or a semiconductor.

10 12. The ion generator as claimed in Claim 1, wherein the outer body is a brush head of a hairbrush.

13. The ion generator as claimed in Claim 1, further comprising an electroconductive plate connected with the outer body, said electroconductive plate and said ground electrode being electrically connected together through the resistance element.

15 14. An ion generator which comprises a needle electrode, a ground electrode cooperable with the needle electrode to generate a corona discharge in the air to produce ions, an outer body disposed on an ion emission side and exposed to an outside, said outer body being made of an antistatic material and connected with the ground electrode.

20 15. A hairbrush which comprises;
an ion generator for emitting ions; and
a brush head having a brush base formed with a multiplicity of bristles, said brush base having an opening defined therein for passage of the ions from the ion generator to an outside of the hairbrush;

25 whereit some of the bristles around the opening in the brush base are removed to provide a plain surface area where no bristle exist.

16. The hairbrush as claimed in Claim 15, wherein the ion generator includes a discharge electrode and wherein a surface area encompassed by a cone having its apex occupied by the discharge electrode and flaring outwardly away from the discharge

electrode and passing in touch with a peripheral lip region defining the opening in the brush base has no bristle.

17. The hairbrush as claimed in Claim 16, wherein a portion of the brush base around the opening is made of a material having a low electroconductivity.

5 18. The hairbrush as claimed in Claim 17, wherein a portion of the brush base around the opening is made of an electrically insulating material.

19. The hairbrush as claimed in Claim 15, wherein the brush base is made of an antistatic material.

20. The hairbrush as claimed in Claim 15, further comprising an indicator for 10 providing an indication of the ions being generated, said indicator being disposed on the brush base adjacent the opening.

21. The hairbrush as claimed in Claim 15, further comprising an ion guide tube made of an electrically insulating material intervening between the ion generator and the brush base for guiding the ions towards an outside of the hairbrush.

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